Frank A. Stahl

Repeated pregnancy in the same tube; a case of homotopic and homositic repeated tubal pregnancy.

Stahl, Frank A.

Repeated Pregnancy in the Same Tube: A Case of Homotopic and Homositic Repeated Tubal Pregnancy

BY

FRANK A. STAHL, M.D.
Chicago

REPRINTED FROM
THE AMERICAN JOURNAL OF OBSTETRICS
Vol. XLIV., No. 4, 1901

NEW YORK
WILLIAM WOOD & COMPANY, PUBLISHERS
1901

REPEATED PREGNANCY IN THE SAME TUBE: A CASE OF HOMOTOPIC AND HOMOSITIC REPEATED TUBAL PREGNANCY.

Reports of cases of repeated pregnancy in the same tube are still so few in number that up to the present writing but three undoubted cases have been recorded—Haydon's, 1863; Coe's, 1893; Heinricius', 1899. This evening I will report the fourth. Though these three were same-sided in repetition, they were not same-sited. The present report will place on record a case of repeated same-sided and same-sited tubal pregnancy—to coin a word, a case of homotopic and homositic repeated tubal pregnancy. It is unique in character. Both pregnancies were recognized before the patient entered the hospital. Her first case holds the record for deliberate diagnosis as to early period of extrauterine gestation; three celiotomies were performed within twenty-one months upon the same patient; following the two celiotomies for the right-sided repeated pregnancies, a third celiotomy was performed for the removal of the cystic degenerated left ovary; the lady, roseate with color, is present this evening, and, as you see, enjoying vigorous health.

Case I.—The first case was reported by N. J. Haydon[1] in 1863 to the London Obstetrical Society—"two fetuses found in connection with the same tube." The sacs occupied different sites in the right tube. The condition was found post mortem.

Case II.—The second case was reported by H. C. Coe, of New York, before the American Gynecological Society. Its extrauterine nature was recognized at the operation. His case was the first of its kind reported that recovered. (For further particulars of both cases see Transactions of the American Gynecological Society, 1893.)

Case III.—The third case was reported by Heinricius and Kolster. Its nature was recognized post mortem.[2]

Presented before the Chicago Gynecological Society, May, 1901.

[1] See Off. Trans., vol. v., 1863, p. 280.

[2] Archiv für Gyn., Bd. lviii., 1899, p. 95.

History.—Six years ago Mrs. K. S., aged 33, noticed a gradually increasing, movable, firm tumor in the abdomen. Menstruation had ceased six months; during this time the tumor increased in size; patient thought herself pregnant. Since return of menses the tumor decreased in size until in the autumn of 1896, by which time the tumor had declined to the size of a fist. In the early part of 1897 the tumor commenced to grow again; in April she felt movements therein, which ceased in August, since which time she reports a decline in the size of the abdomen. In May, edema of face and feet. Since June she complains of a severe cough (tubercular) and loss of strength. When entering Helsingfors Clinic, September, 1897, the diagnosis could not be fixed with any certainty. The history suggested a retained dead intrauterine fetus, though repeated examination failed to find fetal parts; aside from the history a large fibroid was suggested. A smooth, firm tumor could be felt in abdomen, extending from symphysis to midway between umbilicus and xiphoid process and laterally to a finger's breadth of the anterior. superior spinous processes. During the repeated examinations undertaken no fetal parts were to be felt, likewise no sounds audible. No light from the use of the Roentgen rays. Diagnosis *in suspensio.* October 10, cervix dilated with laminaria tent and Hegar's sounds to touch with finger; could find no fetal parts. October 13, peritonitis; October 16, exitus lethalis. At the postmortem, opening the tumor (from the left tube) a well-developed fetus of 51 centimetres was found; macroscopically no maceration. Cutting into a boggy second mass alongside the mature fetus, there were found fetal bones and bone fragments, considered remnants of a previous pregnancy.

Case IV.—History of my case. It is fulsome, yet interesting. Aside from the pregnancies and operations, it shows to what traumatic extremes a gynecean pelvis may be exposed and still recover.

Mrs. X., 5 feet 4 inches in height, weight 125 pounds, now 28 years of age; physically normal. Childhood and family history without pathological importance. First menstruated at 14 years; three to five days, always regular and painless. Course of first pregnancy normal; normal in position; normal delivery by midwife of eight-pound boy November 21, 1893; second stage two hours; third stage half an hour. Puerperium such that she arose on the seventh day, but from then on to when I first saw her, in July, 1897, there is a history of a pelveo-para-perimetritis.

Menstruation irregular, so painful as to be confined to bed; congress painful; on the whole, a dragging existence so far as household duties and comforts are concerned. Not pregnant since first labor.

First Pregnancy and Operation.—Right ampullary tubal pregnancy. In July, 1897, she first came to me. The findings were: uterus enlarged, fixed, and painful when moved; cellulitis less on right side; right ovary not tender; left ovary markedly painful; locally and systemically, the signs of a prolonged pelveo-peritonitis. Locomotion painful and hesitating; exhaustion, anxious pelveo-peritonitic countenance. From July to November office treatment only—as patient lived some five miles from the office—with tampon and douches locally, alteratives and tonics internally. By that time her improvement was so marked that she could resume her full household duties, locomotion being free and upright; pelvic touch no more painful; menstruation again regular and without pain; restoration of cheerful countenance. About November 20, when one week over time, blood appeared, patient thinking, though late, it was a regular menstruation. Second day after she noticed blood coming every half hour or so, and then clotted, accompanied with uterine pains as in labor. Toward evening she noticed a piece of flesh-like-appearing mass, probably the uterine decidua; no pains directly over ovaries, though sore all over lower abdomen and pelvis. Went to bed; got up again the next morning, when she was able to resume her housework. During the week before the initial metrorrhagia she noticed morning sickness; disgust at the smell of coffee; belching and heartburn after eating breakfast; afternoon and evening could eat regularly without distress; tickling in the breasts; feeling of pelvic fulness and bloating; clothes becoming tight, etc. Until about the 25th of November she flowed as described, and flow would cease for some hours, conveying thought of cessation and being clean, when flow would reappear. Continued thus irregularly without large showing until December 4, when she came to me for advice. Upon examination without anesthesia I found the uterus soft, slightly enlarged, fixed as before, with signs of a slight flow; cervix not open as in an incomplete abortion of ten days' standing; on the right side of the uterus a small, firm tumefaction, not painful upon palpation. Diagnosis, extrauterine pregnancy of a few weeks' standing. Tamponed, gave a sedative, and requested her to return in two days, when I found the tumor still the same

and decided on operation rather than longer empiric treatment. I would call attention here to the marked assistance rendered, in the consideration of the diagnosis, by the patient's reply as to morning sickness, vomiting, distaste, etc., her words being: "Doctor, I do not know why it is, but in the morning I feel like vomiting, yet during the day it clears up and in the evening I can eat most ravenously." The statement recurs that not much stress can be laid upon the symptom of early morning sickness, vomiting, etc.

Patient entered the Presbyterian Hospital December 11, 1897; Case No. 19690. Operated on December 15; ether narcosis. Opening the abdomen, quite a typical picture of ruptured tubal pregnancy presented. Hemorrhage was of two kinds: the serum and clots indicated the results of a hemorrhage of several days before; the bright-red blood, the blood from the existing hemorrhage. The active hemorrhage fortunately did not come from an important artery. The ovum had attached itself to the fimbriated extremity of the right tube. To use a figure, it lay in the fimbriæ like an apple in the palm of an outstretched hand. In growing, or through traumatism, the ovum had detached itself only in a part of its circumference; naturally here was repeated a like process to that seen in a partial separation of the membranes from the uterus in an intrauterine pregnancy. In this case hemorrhage occurred more as an oozing than as a flow from the separated surfaces. As a consequence the ovum, still partially attached, became surrounded by a clot; outside of the clot the oozing continued—a process the counterpart of the fleshy mole in intrauterine pregnancy. In reaching down for investigation, the sensation conveyed to the fingers in touching the clot-ovum was just like that received in encountering a piece of adherent placenta in a curage for retention. The sensation was so true that the internes were invited to touch the adherent clot-ovum. No cutting was necessary to remove the clot; simply shelling it off, as in a curage in an incomplete abortion, sufficed to release the clot-ovum. There was nothing else of a pathological nature requiring correction, the tube and ovary appearing not to deserve removal. Therefore the only indication was, to control the oozing from the raw surfaces of the fimbriæ. To accomplish this the fimbriæ were simply folded over and their borders stitched together by means of a continued catgut suture. It will be well to bear this in mind, for where union with occlusion of the fimbriæ was looked for patency persisted, this

suture notwithstanding, as will be seen in the account of the subsequent pregnancy. The peritoneum, especially that of the contiguous bowels, was actively hyperemic, suggestive of a threatening peritonitis. The uterus was found firmly bound to the rectum by a thick band of adhesion, this causing the fixation of the uterus mentioned above and its retroflexion. This band was dissected, releasing the retroflexed uterus. In closing, an abdominal hysteropexy was made and abdomen closed as usual. Her condition coming from the operation was bad, respirations shallow, skin cold. For the following seventy-two hours her condition continued critical, demanding repeated salt, whiskey, and strychnia hypodermatics. In truth, were it not for the unusual skill and untiring vigilance shown by my house interne, Dr. J. D. Freeman, and his assistants, I doubt very

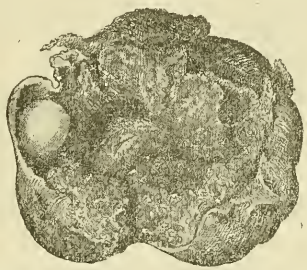


FIG. 1.—Illustration of gestation clot removed at the first operation. Ampullary form of right tubal pregnancy. Clot broken open, showing the gestation sac of about the second or third week. Diameter of ovule in specimen, seven millimetres. Original size.

much that I should have been able to record this case in so happy a frame. After these three days recovery was slow, yet constant. She was discharged January 22, 1898. Her stay in the hospital was prolonged by slight transitory pleuritis manifesting itself during the third week. At home again, it was only after the third month that she could resume her full household duties; no pelvic discomfort; no scalding urine, so distressful before; menstruation, formerly at times so painful that she was compelled to take to bed and use sedatives, now when menstruation recurred it did so without disagreeable prodromata and without pain, first knowledge being due to signs of blood.

Another interesting feature in this case is that, about four months after she left the hospital, wishing to attend church services, she walked some distance. For some reason the uterus became liberated from its attachment to the abdominal wall,

as a consequence of which a series of symptoms developed, such as vomiting, increased temperature, a one-day's flow from the uterus, bright red in color, not pale as is characteristic of the pseudo-menstruation in extrauterine pregnancy. At a certain point to the left of the uterus I found a tumefaction which suggested the possibility of another extrauterine pregnancy. I mention this feature to show how easy it is at times to think of the presence of another such pregnancy where one has previous-

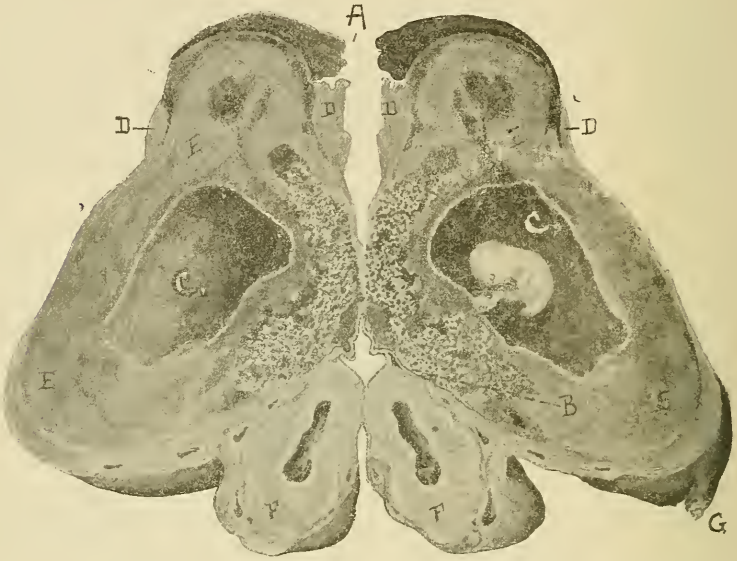


FIG. 2.—*A*, mass made up of right tube and ovary, removed at second operation. Originally a repeated ampullary form of right tubal pregnancy: now tubo-ovarian. *B*, the thinned wall of the fimbriated portion only, separating the placenta from contact with the ovary. There is no direct connection between the blood supply of the two ovaro-tubo-placental circulations. *C*, gestation sac showing placenta, fetus, and cord of about the sixth to eighth week. *D*, site of rupture of the fimbriæ, showing clot (*E*) plugging opening, thus checking free, active hemorrhage. Fetus and cord macerated, undergoing absorption. *F*, ovary shows a still fresh corpus luteum, which furnished the ovule for the second pregnancy. *G*, resected tube. Original size.

ly occurred. This swelling must have been due to the slight hemorrhage and to the exudate from the irritation incidental to the separation of the uterus from its abdominal attachment. This all cleared up with douches, tampons, and rest.

Second Pregnancy and Operation.—Repeated right ampullary tubal pregnancy. Patient continued well until last regular menstruation in January, 1899. Toward the end of February she noticed morning sickness, morning loss of appetite, fulness

of breasts. A slight flow had shown itself for two days. Though alarmed, since she continued to feel well she grew easier. Continued her household duties as usual. March 25 she went down one flight of steps to carry up coal. She is of quite strong muscles. Shovelling two coal buckets full, no discomfort followed. But in lifting the two buckets at once, intending to carry them up at the same time, she was suddenly seized with a sharp, lancinating pain in the right side, dizziness and vertigo, but did not fall. She waited a moment to recover, supporting her sides with her hands as though to prevent something from falling through the pelvic floor. After a few moments she had recovered to such an extent that she carried up one pail, then came down and carried up the second pail. By this time the abdominal pains had become so severe that she was compelled to go to bed, where she applied a liniment to the abdomen. About one hour after she arose, though without acute pain, yet with a sense of pelvic soreness. The next Sunday she walked a distance of one mile. This coal-household traumatism had occurred twelve days before she called me. During this time she had done her own housework, heavy washing, etc., without pain, only a feeling of soreness in the lower abdomen and discomfort. The following Wednesday morning she had taken some Hunyadi water; in the bathroom, while movement occurred, she grew faint, and when movement finished she fainted. Intense pain followed, recovering so she could hobble to bed; no uterine hemorrhage whatever. When I called, the patient presented a picture of severe peritoneal irritation. Examination found a firm, rounded, oblong tumor at same site of previous operation. In reply to the suggestion that she was pregnant, she answered that she had been happy in the thought that she was, and that since the attack of twelve days before she feared some serious disaster similar to the first. Diagnosis, without anesthesia, repeated right ampullary pregnancy. She entered the Presbyterian Hospital, the second time, April 9, 1899; Case No. 22627. Operation April 12; chloroform narcosis. Abdomen clear of hemorrhage; no adhesions; mass of right tube and ovary, containing pregnancy of about six weeks, removed close up to the uterus without difficulty. The reason that there was no free hemorrhage into abdominal cavity will be seen by referring to the accompanying illustration (Fig. 2). The interval marking where rupture of fimbriæ of tube had taken place was plugged up by a firm clot, fortunately

checking both hemorrhage and opening. The left ovary seemed smaller than usual, but was without cysts. Uterus well in its perpendicular, no traces of former bands of adhesion either to rectum or abdominal wall. Patient returned from operation in fairly good condition. Her recovery was prompt, patient going home after the fifth week. Household duties resumed without discomfort.

Third Operation.—For cystic degeneration of left ovary. Patient again presented herself at office for diagnosis because of a slight bright-red hemorrhage from the uterus. In the interval since the last operation she had enjoyed good health. Menstruation regular and without pain. Examination yielded a fluctuating, rounded tumor to the left of the uterus—a cystic ovary. Entered hospital for the third time September 20, 1899; Case No. 23764. September 21, operation; chloroform narcosis. No adhesions. Easily removed the mass, made up of the cystic degenerated left ovary and part of that tube. The patient returned from the operation in good condition. Discharged October 11.

Subsequent History.—For some seven months after third operation patient speaks of a monthly complex of symptoms, such as flushes of heat, nervousness, irritability, and a feeling of general malaise—as she expresses it, "as though she wanted to be sick (menstruation) and could not"—corresponding in time to that of her previous periods. She never has had even a sign of blood since the last operation. This monthly complex I attributed to the continued but declining irritability of that part of the menstrual cycle still remaining. This has gradually passed away. As to her present physical condition, as you see to-night, May 29, 1901, she is well and in splendid health.

Other Cases.—Other cases presumed to have been repeated same-sided tubal pregnancy have been recorded, viz., by Alban Doran, J. W. Taylor, T. F. Prewitt, Gottschalk, Bennington, and the latest by P. A. Harris, of Paterson, N. J.[1] These cannot be included among the undoubted because of insufficiency of laudable evidence.

The Impossible in Tubal Pregnancy.—Included in the account of Haydon's case is a "Report on Specimen, by Dr. Tyler Smith and J. Braxton Hicks. From hence we infer the following: 1. That some time since (five years before) the patient had conceived extrauterine: that the fetus was attached to the

[1] Medical News, vol. lxxvi., 1900, p. 561.

fimbriated extremity of the Fallopian tube (left) in such manner as not to form impediment to subsequent conception; that this fetus died at about the second month of pregnancy, enclosed still in its ovular structure; that it then dwindled gradually away to its present state, the chorion villi being absorbed. 2. That at a later period, probably some months before death, she again conceived, also extrauterine, but the ovum had this time descended to the middle of the tube; that it was there arrested,

FIG. 3.—From a section of the right tube close to the gestation sac. The specimen from which this section is taken shows a U-twist in the tube; undoubtedly the salpingitis with this twist caused such a stenosis of the lumen at this point as to permit of sufficient space for the passage of the spermatozoa to the waiting ovule, but was so narrow that it checked at this point the passage of the larger ovum in its course toward the uterus. Congestion with hypertrophy.

lived about three months, and then died, three months after which the sac bursted ensued."

It seems rather strange that this report by so well-known writers as Drs. Smith and Hicks should meet with such emphatic doubt as that expressed by a subsequent writer and one also well known for his work on the tubes and ovaries. Speaking of repeated tubal gestation, J. Bland Sutton[1] writes: "Parry has grouped under this heading several cases of women who have been known to bear more than one extrauterine child; but

[1] Diseases of Tubes and Ovaries.

it may be at once stated that of the nine cases adduced by Parry, not one can be regarded as of the least value in establishing such an occurrence. Indeed, in one instance he is so credulous as to believe that tubal pregnancy may happen twice in the same tube. The case in question is reported in great detail by Dr. Haydon, whose account is supplemented by a report on the specimen, signed by Drs. Tyler Smith and Braxton Hicks. This paper is illustrated by a plate, from which it seems exceedingly probable that the patient had a bicornate uterus.[2] Repeated gestation in the same tube is an impossibility, for the pregnancy produces such gross changes as to render it functionless.''

So writes Sutton in 1891. Whatever doubt may have seemed justified then, to-day, in view of the incontrovertible evidence as furnished by these later cases (2 and 3), there can be no more room for doubt, not even for a purely technical one, such as possible other-sided migration of the ovum with subsequent implantation. For, aside from Coe's and Heinricius' cases, my case, as shown by its history and by illustrations of both

[2] Not only Sutton (1891) regards this case as doubtful. Likewise Varnier and Sens (Annales de Gynécologie d'Obstétrique, Mars, 1901, pp. 170-171), in referring to this case, include it among the "elles manquent de la précision anatomique et clinique qu'on est en droit d'exiger pour des faits aussi extraordinaires, viz., N. P. Haydon, W. Taylor, T. Prewitt, Gottschalk, et Alban Doran."

The writer prefers to include Haydon's case among the undoubted. For if the doubt be based only, as it seems, upon the presumption that there was a bicornate uterus present, over against that view lies the fact that Drs. Smith and Hicks spoke of that uterus in a way implying a normal development, so far as the uterus itself is concerned, as may be seen in the following: "Uterus nearly four inches long, two inches wide. The walls proportionately thick. Interior of uterus lined with a very thick decidual membrane, now easily separable. This layer is quite as thick as is found in normal gestation at its fullest development, and under the microscope is found to possess the elements of the decidua of pregnancy" (from their report).

A bicornate uterus under those circumstances would be so pregnant a uterine developmental anomaly that the gentlemen could not avoid its recognition, and, I dare say, would not avoid its annotation. Nor does it follow as a consequence that, given a bicornate uterus, a unilateral or a repeated homotopic extrauterine pregnancy is impossible. The slightest dipping down of the fundus of the uterus of my case would have brought it within the range of the bicornate uteri. Though it must be admitted a septum, complete or partial, might influence such occurrence, yet the etiological factors lie essentially extrauterine, beyond the cornua.—S.

pregnancies, with the still fresh corpus luteum of the right ovary, removing all doubt as to the origin of the second ovum, meets all his objections. Therefore I would offer these conclusions:

1. Repeated gestation in the same tube does occur. In fact, the ease with which such a primary tubal pregnancy may pass unrecognized and have comparative health follow would strongly suggest that a more frequent occurrence of repetition takes place than is reported.

FIG. 4.—From a section of the left tube close to the cyst. Tube markedly twisted. Fibrosis with atrophy.

2. Repeated gestation in the same tube (or other part, as abdomen) is not an impossibility; it occurs.

3. It does not follow that a former pregnancy produces such gross changes as to render it (the part) functionless.

Etiology.—The right tube and ovary. Ovary, some inflammatory round-cell infiltration, slight in character. The fresh corpus luteum shows ovary possessed of good physiological function. Tube, slight torsion near fimbriæ; epithelia of tube uterineward from sac, microscope shows them to be swollen and overripe, but nowhere is there loss of epithelial cells or exposure of the basement membrane. Slight round-cell infiltration into other coats—a picture of a mild salpingitis.

The left tube and ovary show microscopically: Ovary, cystic,

monolocular, seven by four and a half centimetres; marked fibrosis and pressure atrophy with disappearance of parenchyma. Tube, a similar condition of fibrosis, complete loss of epithelium, so picture looks like branches without leaves. Both functionless. Firm occlusion of fimbriæ. Marked torsion of the tube. The etiological factor of left-side sterility is plain, chronic salpingitis and ovaritis, due, as also the slight inflammatory changes of the right side, to the septic pelvic trouble following the first labor.

In the early fifties Virchow ascribed salpingitis with its changes as the important etiological factor in extrauterine pregnancy, its inflammatory exudation stiffening the tubal coats, causing impairment to its ovum-carrying functions. Since then much has been recorded *pro* and *con,* especially within the last fifteen years. It would be impractical to mention even a few of these many writers or their opinions in detail. It will suffice to mention several to show the trend that obstetrical thought is assuming to-day. Contrary to this opinion, Edgar writes[1] in his report of a case of repeated extrauterine pregnancy "that he found no pathological changes and is of the opinion, like other authorities, that salpingitis plays no important rôle."

On the other hand, Moscowicz[2] presents two cases in which he associates tubal pregnancy with tubal infection.

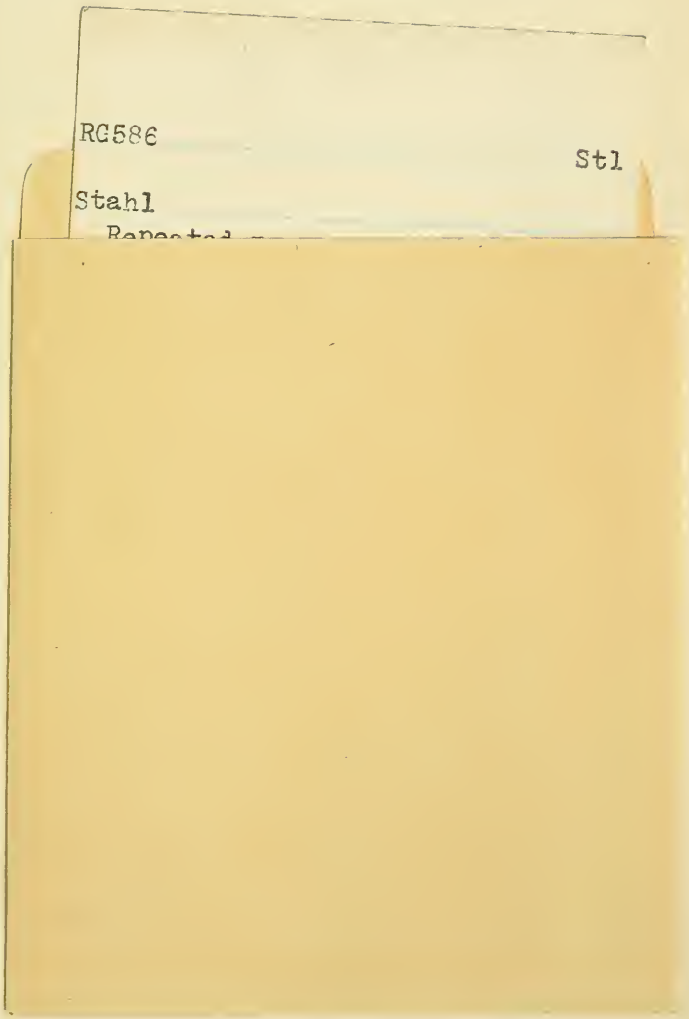
Franz[2] also favors salpingitis as etiological factor. He advances the theory—and I venture to say that this is the popular opinion accepted to-day (aside from those cases due to anomalies of development, as accessory tubes, etc.)—that extrauterine pregnancy occurs in convalescent tubes, in which the ovum-carrying function of the tube is disturbed for a time and eventually has been gradually but imperfectly re-established. So far as my case is concerned, its history, clinical, macroscopical, and microscopical, shows salpingitis (following the pelvic sepsis after the first labor) as the important factor in its etiology, confirmatory of Virchow's early and Franz's to-day opinion.

Query: Why was not the right tube and ovary removed at the primary operation? Conservatism: In conversation with the patient, and which in spirit was repeated each time, she begged: "Doctor, don't, don't—oh, you know, please don't. I love my husband and we both love children, so please spare them if you possibly can." I offer no other argument.

[1] Edinburgh Medical Journal, July, 1899, p. 35.

[2] Centralblatt für Gynäkologie, Bd. xlii., 1899, p. 1290.

[2] Centralblatt für Gynäkologie, Bd. xlii., 1899, p. 1290.


RC586
Stl
Stahl